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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,338

09/19/2006

Kazuhiro Oda

295978US0PCT

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04/16/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ROE, JESSEE RANDALL

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

04/16/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/593,338	Applicant(s) ODA ET AL.	
	Examiner Jessee Roe	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>28 November 2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

Claims 4-10 are pending wherein claims 4-6 are amended; claims 1-3 are canceled; and claims 7-10 are new.

Status of Previous Rejections

The previous rejection of claims 4 and 6 under 35 U.S.C. 103(a) as being unpatentable over Horikawa et al. (JP 2000-204428A) is withdrawn in view of the Applicant's arguments and amendments to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi et al. (US 4,919,736).

In regards to claim 4, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	0.3 – 3	0.5 – 2	0.5 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0	0 – 0.5	0
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of iron and manganese is 3.0% by mass or greater” as in lines 5-6 of claim 4, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron and manganese would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron and manganese from the aluminum alloys disclosed by Nishi et al. ('736)

Art Unit: 1793

because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

In regards to claim 5, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	1 – 3	0.5 – 2	1 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0.5 – 6	0 – 0.5	0.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 5-6 of claim 5, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the

Art Unit: 1793

contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

In regards to claim 6, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68, col. 2, lines 58-63 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	0.3 – 3	0.5 – 2	0.5 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0	0 – 0.5	0
Mg	0.05 – 1.5	0 – 3	0.05 – 1.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel, and magnesium for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

Art Unit: 1793

With respect to the recitation “wherein the total amount of the combination of iron and manganese is 3.0% by mass or greater” as in lines 8-9 of claim 6, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron and manganese would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron and manganese from the aluminum alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

In regards to claim 7, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68, col. 2, lines 58-63 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	1 – 3	0.5 – 2	1 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0.5 – 6	0 – 0.5	0.5
Mg	0.05 – 1.5	0 – 3	0.05 – 1.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al.

('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel and magnesium for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation "wherein the total amount of the combination of Iron and manganese is 3.0% by mass or greater" as in lines 7-8 of claim 7, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

In regards to claim 10, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	1.2 – 3	0.5 – 2	1.2 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0.5 – 6	0 – 0.5	0.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 4-5 of claim 10, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum

Art Unit: 1793

alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

Claims 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa et al. (JP 2000-204428A).

In regards to claim 5, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language "consisting of" and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy

would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 5-6 of claim 5, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

In regards to claim 7, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (col. 1, lines 58-68 and col. 3, lines 6-14).

Art Unit: 1793

Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	0.05 – 1.5	0.5 – 2.0	0.5 – 1.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel, chromium and magnesium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of Iron and manganese is 3.0% by mass or greater” as in lines 7-8 of claim 7, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron and manganese would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in

Art Unit: 1793

the art to select the claimed ranges of iron and manganese from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

In regards to claim 8, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	0.3 – 3	0.2 – 1	0.3 – 1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel and chromium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language “consisting of” and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy

would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 4-5 of claim 8, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

In regards to claim 9, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (col. 1, lines 58-68 and col. 3, lines 6-14).

Art Unit: 1793

Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	0.3 – 3	0.2 – 1	0.3 – 1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	0.05 – 1.5	0.5 – 2.0	0.5 – 1.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel, chromium and magnesium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 7-8 of claim 9, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Takalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in

the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

Response to Arguments

The Applicant primarily argues that in reference to new claim 7 that Horikawa et al. (JP '428) broadly suggests 0.2 to 1.0 weight percent manganese but the examples therein only use 0.35 weight percent manganese and Horikawa et al. (JP '428) uses only 0.08 weight percent chromium in the examples and therefore the instant invention would distinguish from the prior art. The Examiner respectfully disagrees with this assessment. A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including non-preferred embodiments. MPEP 2123 (I). Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. MPEP 2123 (II).

Applicant's arguments with respect to claims 4 and 6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

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/John P. Sheehan/
Primary Examiner, Art Unit 1793

JR